Amendments to the claims (this listing replaces all prior versions):

1. (Currently amended) A method of converting power from an input source for delivery to a load, where the load may vary over a normal operating range, comprising:

providing an array of two or more voltage transformation modules (VTMs), the array having an input for receiving power from the input source and an output for delivering power to the load;

each VTM having an input, an output, and a substantially fixed voltage transformation ratio, $K = V_{out}/V_{in}$, over the normal operating range, where V_{in} is the voltage across the respective VTM input and V_{out} is the voltage across the respective VTM output, and providing isolation between its input and its output;

adaptively configuring the VTMs in and out of a series connection to adaptively adjust the aggregate voltage transformation ratio of the array and regulate the output voltage.

2. (Original) The method of claim 1 wherein the inputs of the VTMs are adaptively configured.

3. (Original) The method of claim 1 wherein the outputs of the VTMs are adaptively configured.

4. (Original) The method of claim 1 further comprising:

providing, in one or more of the VTMs, a method of converting power comprising:

forming a resonant circuit including a transformer and having a characteristic resonant frequency and period;

providing two or more primary switches to drive the resonant circuit; and

providing a switch controller to operate the primary switches in a series of converter operating cycles, each converter operating cycle characterized by

(a) two power transfer intervals of essentially equal duration, during which one or more of the primary switches are ON and power is transferred from the input of the VTM to the output

of the VTM via the transformer, and voltages and currents in the VTM rise and fall at the characteristic resonant frequency.

5. (Original) The method of claim 4 wherein:

each converter operating cycle is further characterized by (b) two energy-recycling intervals each having an essentially constant duration over the normal operating range during which the primary switches are OFF; and

the method of converting power further comprises using magnetizing current to charge and discharge capacitances during the energy-recycling intervals.

6. (Original) The method of claim 5 wherein the method of converting power further comprises using the switch controller to turn the primary switches OFF essentially at times when the current in a secondary winding returns to zero.

7. (Original) The method of claim 1 further comprising sensing the array input voltage and wherein the adaptive configuring is in response to changes in the array input voltage.

8. (Original) The method of claim 1 or 7 further comprising sensing the array output voltage and wherein the adaptive configuring is in response to changes in the array output voltage.

9. (Original) The method of claim 1 wherein the array comprises VTMs having voltage transformation ratios that form a binary series.

10. (Original) The method of claim 1 wherein

the array comprises a main VTM and an auxiliary VTM;

the main VTM having fixed connections to the array input and output; and

the auxiliary VTM being adaptively configured between a series-connection with the main VTM or disconnected from the array.

11. (Original) The method of claim 1 further comprising providing a linear regulator between the array output and the load.

12. (Original) The method of claim 1 further comprising providing a linear regulator between the input source and the array input.

13–25. (Cancelled)

26. (Currently amended) Apparatus for converting power from an input source for delivery to a load, where the load may vary over a normal operating range, comprising:

an array of two or more voltage transformation modules (VTMs), the array having an input for receiving power from the input source and an output for delivering power to the load;

each VTM having an input, an output, and a substantially fixed voltage transformation ratio, $K = V_{out}/V_{in}$, over the normal operating range where V_{in} is the voltage across the respective VTM input and V_{out} is the voltage across the respective VTM output, and providing isolation between its input and its output;

configuration switches connected to the VTMs for configuring the VTMs in and out of a series connection;

wherein the apparatus configures the VTMs in and out of the series connection to adaptively adjust the aggregate voltage transformation ratio of the array and regulate the output voltage.

27. (Original) The apparatus of claim 26 wherein the configuration switches are connected to the inputs of the VTMs and the VTM inputs are adaptively configured.

28. (Original) The apparatus of claim 26 wherein the configuration switches are connected to the outputs of the VTMs and the VTM outputs are adaptively configured.

29. (Original) The apparatus of claim 26 wherein one or more of the VTMs further comprise:

a resonant circuit including a transformer and having a characteristic resonant frequency and period;

two or more primary switches connected to drive the resonant circuit; and

a switch controller adapted to operate the primary switches in a series of converter operating cycles, each converter operating cycle characterized by
(a) two power transfer intervals of essentially equal duration, during which one or more of the primary switches are ON and power is transferred from the input of the VTM to the output of the VTM via the transformer, and voltages and currents in the VTM rise and fall at the characteristic resonant frequency.

30. (Original) The apparatus of claim 29 wherein:

each converter operating cycle is further characterized by (b) two energy-recycling intervals each having an essentially constant duration over the normal operating range during which the primary switches are OFF; and

wherein magnetizing current is used to charge and discharge capacitances during the energy-recycling intervals.

31. (Original) The apparatus of claim 30 wherein the switch controller is adapted to turn the primary switches OFF essentially at times when the current in a secondary winding returns to zero.

32. (Original) The apparatus of claim 26 wherein the apparatus senses the array input voltage and configures the VTMs in response to changes in the array input voltage.

33. (Original) The apparatus of claim 26 or 32 wherein the apparatus senses the array output voltage and configures the VTMs in response to changes in the array output voltage.

34. (Original) The apparatus of claim 26 wherein the array comprises VTMs having voltage transformation ratios that form a binary series.

35. (Original) The apparatus of claim 26 wherein the array comprises a main VTM and an auxiliary VTM;

the main VTM having fixed connections to the array input and output; and the auxiliary VTM being connected between a series-connection with the main VTM or disconnected from the array via the configuration switches.

36. (Original) The apparatus of claim 26 further comprising a linear regulator connected between the array output and the load.

37. (Original) The apparatus of claim 26 further comprising a linear regulator connected between the input source and the array input.

38–70. (cancelled)